

[TITLE OF THE DOCUMENT] ABSTRACT

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[OBJECT] The present invention provides (i) a method for producing retinal nerve cells by inducing differentiation into retinal nerve cells, without requiring gene transfer, from iris pigmented epithelial cells and (ii) the retinal nerve cells obtained by the method.

[MEANS TO ACHIEVE THE OBJECT] A method for producing retinal nerve cells by inducing differentiation of iris pigmented epithelial cells into the retinal nerve cells. In a first method, iris pigmented epithelial cells derived from a mammal and embryo retinal stem cells derived from a bird are co-cultured. In a second method, iris pigmented epithelial cells of a bird or a mammal is isolated, and the iris pigmented epithelial cells is subjected to adherent culturing. According to these methods, the retinal nerve cells can be produced by using iris pigmented epithelial cells collected from a patient per se. Therefore, there is a possibility that highly effective regenerative medical treatment can be realized.

[SELECTED DRAWINGS] NA